Abstract

The present invention provides a method and system for pattern recognition and processing. Information representative of physical characteristics or representations of physical characteristics is transformed into a Fourier series in Fourier space within an input context of the physical characteristics that is encoded in time as delays corresponding to modulation of the Fourier series at corresponding frequencies. Associations are formed between Fourier series by filtering the Fourier series and by using a spectral similarity between the filtered Fourier series to determine the association based on Poissonian probability. The associated Fourier series are added to form strings of Fourier series. Each string is ordered by filtering it with multiple selected filters to form multiple time order formatted subset Fourier series, and by establishing the order through associations with one or more initially ordered strings to form an ordered string. Associations are formed between the ordered strings to form complex ordered strings that relate similar items of interest. The components of the invention are active based on probability using weighting factors based on activation rates.